

APPENDIX 1

ROYAL WORCESTER PORCELAIN WORKS, HISTORICAL AND INDUSTRIAL RESEARCH OF THE GROUP COMPOSED OF BUILDINGS L, M, N, O, P, R, S and T

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The group composed of buildings L, M, N, O, P, R, S and T

Outline description of the buildings

Buildings L, M, N, O, P, R, S and T, although starting their lives as individual buildings, were integrated into one mass at ground floor level after the Second World War. Buildings M, N, R and S have first floors, sometimes more, and have retained their individuality where they rise above the ground floor mass. Building T, as built, contained a set of bottle kilns and although these rose to a height above the other two-storey buildings it was really only one.

Buildings L and O are single-storey infills lying either side of the combined Buildings M and N on their north and south sides. The single-storey Building P ran along the west ends of M, O, S and R to form the western extent of the mass.

Running from north to south along Prince's Drive were the fronts of Buildings N, O, S and T. Buildings N and S were given prestigious east elevations in harmony with Building G where biscuit kilns and a placing house lay and Building E which was the Throwing House. Between N and G lay Building J (of a somewhat earlier date and slightly set back from the drive not really forming part of the Prince's Drive architectural statement).

The land on which these buildings were to lie was purchased in several plots from John Field in April 1862. Building M was first on the scene and is known to have been completed by 1867¹ (Figure 1). By 1875 Buildings N, R, S and T had been added to the stock (Figures 2, 3 and 4).

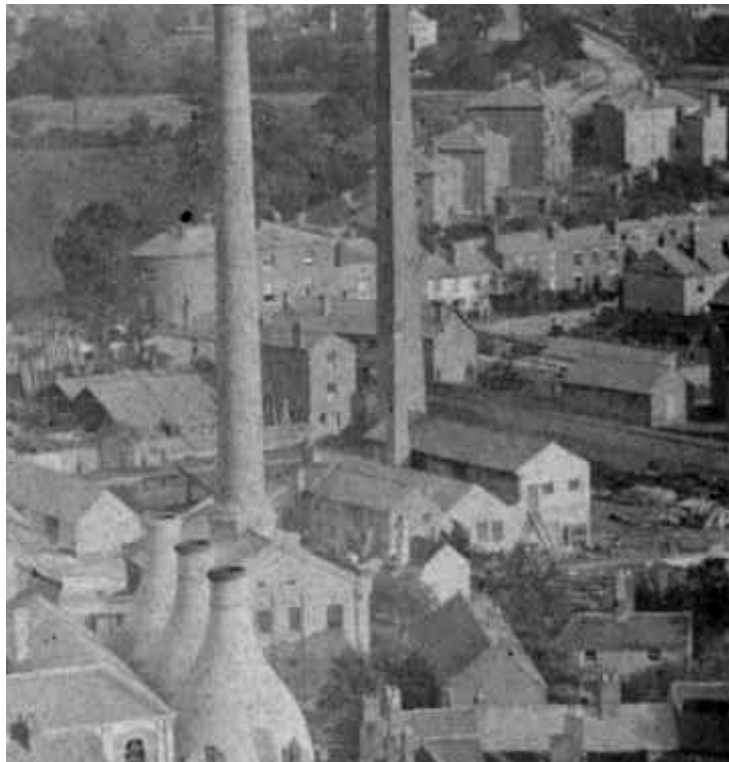


Figure 1: Detail of a photograph from the 1860s showing Building M sitting alone in the area with its tall chimney stack. The buildings beyond to the right belong to the area of Buildings W, Y and Z (source: Worcester Porcelain Museum).

1 As shown on the Board of Health plan of 1867

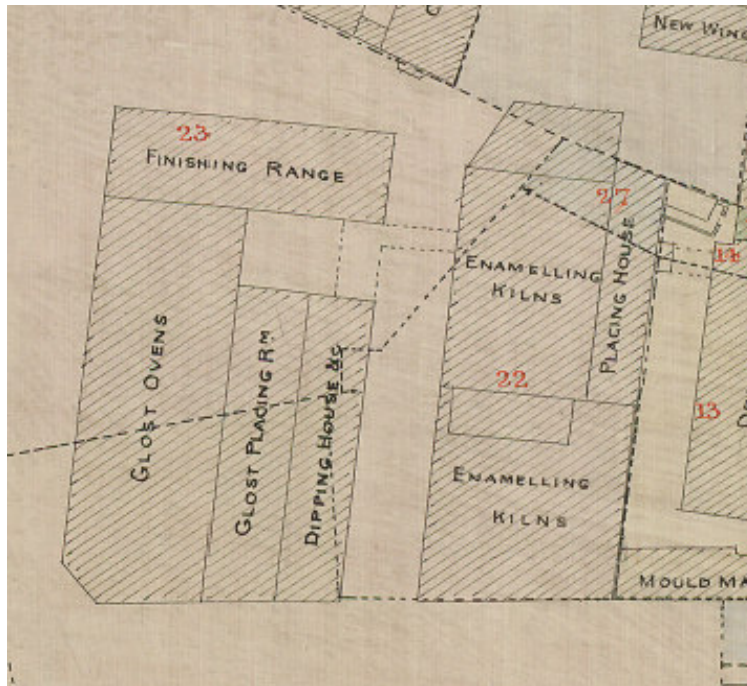


Figure 2: The area of buildings M 'Enamelling kilns', N 'Enamelling kilns', R 'Finishing range', S 'Glost Placing Rm/Dipping House &c' and T 'Glost ovens' in 1875²

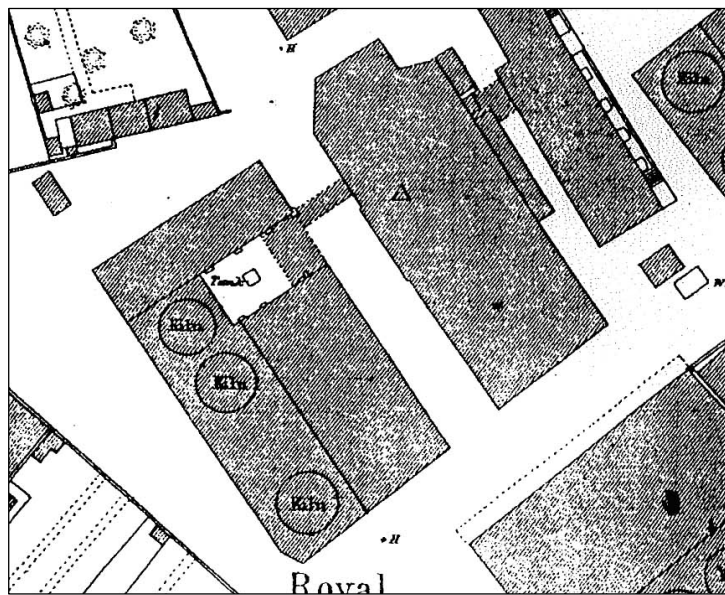


Figure 3: The buildings as shown in Figure 2 in 1884 (source: extract from 1st Edition Ordnance Survey 25in to one mile map)

2 Worcester Porcelain Museum 'Copied from the PLAN on the MORTGAGE dated 2 June 1875 and numbered and coloured to show the Title under which the various parts thereof are held'

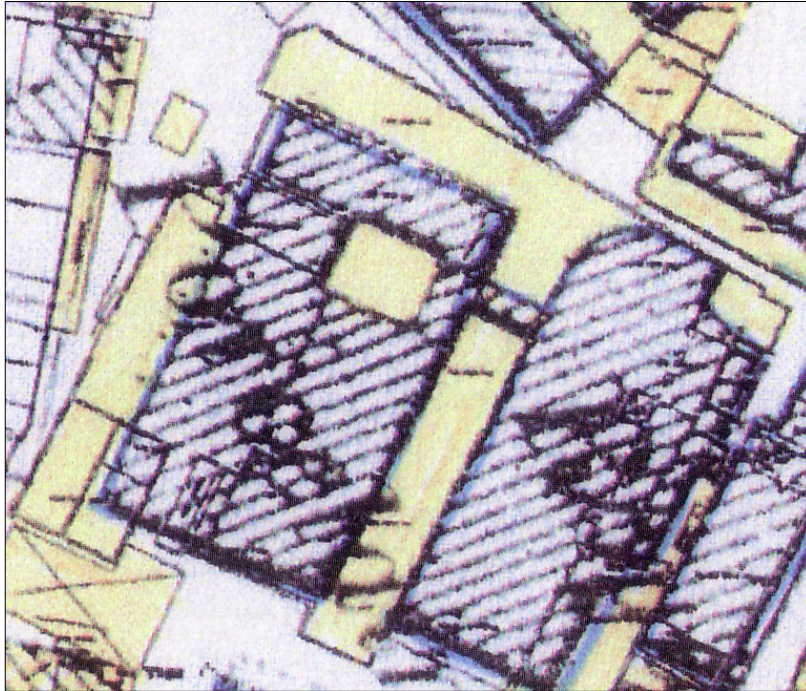


Figure 4: Extract from 1902 Ordnance Survey map with pre-1875 buildings (hatched) with additions (Buildings L, O and P) in yellow. The extension to the left is part of the 1947 shed which replaced the kilns on Building T).

The function of these buildings were closely related. Half of Building S was given over to hand-dipping in which a thin coating of glaze was applied to the biscuit ware. It was then transferred across to the placing room from where they were stacked in the gloss kilns (Building T) for their second firing. In Building R the wares were inspected and small blemishes removed. There was a fair amount of interchange between here and the enamelling kilns in Building M and N and across the bridge to Building Q. In M and N there were numerous decorating firings. This was a very important part of the process, when the porcelain was at its most valuable and losses were very costly.

In 1928 there were changes in the areas of Buildings M and N and the dipping room was extended making Building O, previously an open space. During the Second World War a tunnel kiln was installed here and this opened up the potential for the vacant area the other side of M and N towards Building J. This was also roofed over for a further tunnel kiln which was placed here in 1951 (Building L). Meanwhile, in 1947, the kilns at Building T had been dismantled and a brand new building erected which was extended to the south to take tunnel kilns. Space for additional tunnel kilns was limited, so with nowhere else to go, the open area to the west was utilized and tunnel kilns run across the rear of Buildings M, O, S and R in the late 1960s. Thus the whole area formed one continuous shed at ground level fused together by the tunnel kiln Buildings L, O and P.

The more detailed description of the buildings which follows does not necessarily follow in alphabetical order but a rough chronological order is adopted.

Building M: The grinding and polishing shop (west)

History and development

Building M has been considerably altered and hemmed in by other buildings. Despite this it retains its original roof structure – significantly a timber-trussed one. It also contains a typical fireproof ceiling derived from the type used at Bages Mill in Shrewsbury in 1797.

As we have seen Building M was completed by 1866 on land acquired in 1862. The architect was probably Walter Scrivener. It was built to hold a number of enamelling kilns and an enormous chimney was built for that purpose (Figure 5).



Figure 5: Buildings M and N viewed from the top of the Cathedral. The large round chimney belongs to M and the square chimney behind to N (detail from a photograph held by the Worcester Porcelain Museum).

The kilns would have been in the ground floor. By the time a piece of porcelain had reached this area for its final enamel and gold firings it could have been fired up to ten times. Each range of colours, which were made with different metal oxides, had to be fired at a different temperature. Each firing was slightly lower than the previous one. Gold was always fired last, at the lowest temperature, usually around 800 degrees centigrade. The unusual vaulted ceiling in the ground floor of this building was probably fireproofing as a safeguard for wares that were nearing completion and therefore at their most valuable. A large mould chamber would have been sited above the kiln room to act as insulation against sudden changes of temperature that could have a detrimental effect on the precarious firing and cooling process.

By 1923 the chimney serving the enamel kilns was showing wear and it was repaired using eight iron bands and some re-pointing.³ This measure was short-lived however and in December 1928 approval was given for its demolition.⁴ This appears to have heralded a series of major alterations and additions around Buildings M and N which reached maturity in 1950.

Many of these relate more to Building O and are dealt with below but where they bear on the evolution of Building M, they are dealt with here. In the main, the alterations focused on one of the two bridges which were in place by 1875 (see Figure 2). Both lay towards the western end of Building M, one linking the northern side of Building M to Building J. The other, and the one that concerns us here, lay opposite to this (to the south) linking Building M to Buildings R and S. After crossing the open space between it separated into two right-angled branches – one to Building S and one to Building R.

In 1928 the vacant space between the combined south walls of Buildings M and N and Building S was infilled with a single-storey building (Building O) which was given a simple pitched roof running up to the bridge. In 1941 an electric tunnel kiln was installed here but, being too long to fit into the length available between Prince's Drive and the bridge, the area was extended west beyond the bridge almost up to the end of Building R. At the same time the first floor of Building M was also extended to join the landing into Building S by removing the apex roof in part of Building O and covering the whole of the new area with a flat roof.

There was now a continuous first floor area running from Building M joining Buildings S and R which was boxed in at the north end but there was no removal of existing first floor walls. The only means of contact between the two groups remained the bridge. This provided the opportunity to revamp the interior of Building M and partition it in such a way as to provide a corridor between the two opposite bridges.

A natural progression followed when, in October 1950, the odd-shaped single-storey west end of Building M was removed and some lavatories built to serve the decorating departments that were situated in the ground floor of Building M.⁵ It was around this time that the lavatory block was built (Building L1).⁶

By now Building M (with N) had become the grinding and polishing range and this may well have been the situation after 1928 when the stack was removed. Logically this would have been the time that the roof was raised in Building N to make a second floor. The ground floor of M was used for china glost inspection with a Glost Warehouse above. In 1988 the ground floor remained the site of the china decorating kilns.

3 Company Minute Book Minute 8641, Sept 1923 (Worcester Porcelain Museum) hereafter shortened to 'Minute' (Worcester Porcelain Museum)

4 Minute 9518 (Worcester Porcelain Museum)

5 Minute 901 Book 12 (Worcester Porcelain Museum)

6 April 1951 (Worcester Porcelain Museum drawing 4968/6/a)

Building N: The grinding and polishing shop (east)

History and development

This seven-bay brick range was built by 1875 by George B Ford as one storey but was modified into two using the wall of an adjoining lean-to which became part of Building L. It was built between the earlier east gable wall of the Grinding and Polishing Shop to the west (Building M) and the west side of Prince's Drive and is therefore a later extension to it (Figure 6). Opposite is K2, the former Showroom. As such it therefore forms an important compliment to all the other buildings built by Ford in the 1870s which front onto Prince's Drive (Figures 7 and 8).



Figure 6: The junction of Building M and N (left to centre). M is the taller building. Building L is the hipped-roofed building which holds a loft. Building J lies to the right.



Figure 7: Prince's Drive from the south-east showing some of George Ford's fronts around 1923 when the chimney to M was repaired. The kilns belong to Building T with S beyond, followed by O and N. The chimney stacks to Buildings N (right, just behind the gable of S can just be seen (source: Worcester Porcelain Museum).

Building N cannot be wholly divorced from its parent Building M of which it was an ‘Additional Shed’ (Figures 8 and 9). In September 1872 there was a proposal to erect a building to house two new enamel kilns with a roof over them, a Greenware room for drying, and on the first floor mould makers shops, a large mould chamber and heating store.⁷ Nothing seems to have come of this two-storey proposal and it was not until March 1875 that it was formally proposed to extend Building M.⁸ Presumably the Directors had the plan prepared by George Ford dated May 1874 (Figure 9). In March 1875 Samuel Lamb of Burslem agreed to build three cones and ovens in the new buildings for the sum of £150.9 Building must have proceeded very rapidly because the building was up and running by June (Figure 2).

The east elevation presented by Ford was very similar to that completed except for the extra (and later) added gable. The two central windows as built appear to be lower than originally intended by Ford and the lean-to bears no resemblance to that found today. Although incorporated into Building L around 1951, it has a distinctly earlier appearance.



Figure 8: Building N before being heightened (source: Worcester Porcelain Museum)

In December 1876 R W Binns announced that they had been experimenting with “a view to fire enamel and other kilns with gas and stated they were so far satisfactory as to justify him in taking out a provisional protection under the patent act”.¹⁰ By October 1877 a 60ft tall chimney was needed to serve the four enamel kilns because they were too far away from the main chimney to fire the ware properly. This suggests that the main chimney was that belonging to Building M (Figure 8). Having agreed to go ahead this would suggest (although not 60ft) that this was the one built towards Prince’s Drive and lay in N. The single-storey Building N with its corrugated-iron roof (Figures 9 and 10) made it an easy matter to run a chimney through the gap which divides the roof. As we have seen Building N was originally a single-storey building.

7 Minute 1652 (Worcester Porcelain Museum)
 8 Minute 2001 (Worcester Porcelain Museum)
 9 Minutes 2001 and 2029 (Worcester Porcelain Museum)
 10 Minutes 2229 and 2335 (Worcester Porcelain Museum)

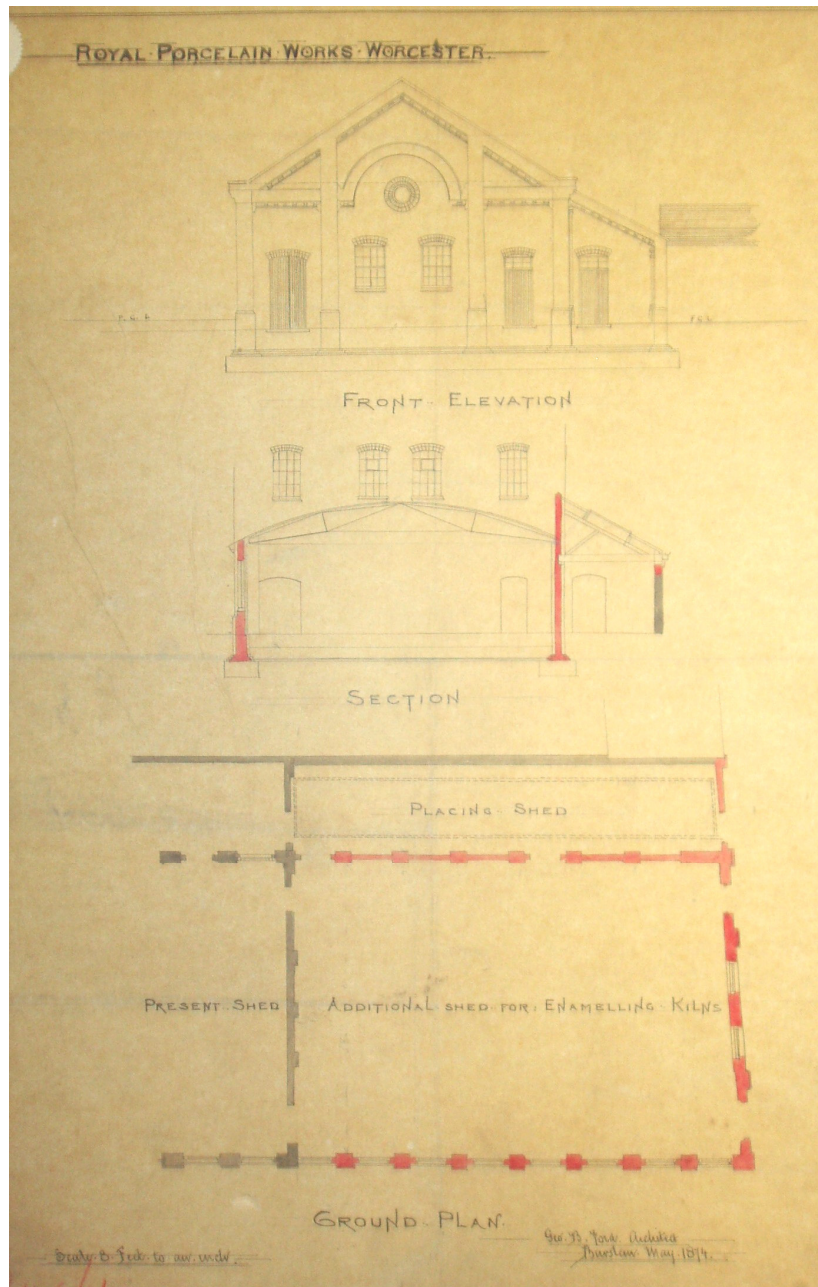


Figure 9: 'Additional Shed for enamelling kilns with a corrugated-iron roof by G Ford Architect May 1874 Burslem'. The lean-to was later adapted into a two-storey building which was incorporated into Building L (source: Worcester Porcelain Museum).



Figure 10: Enamelling kiln under a corrugated-iron roof as originally built for Building N (source: Worcester Porcelain Museum)

The east elevation was heightened in the 1940s and changes were afoot next door in Building O. The loft (see Figure 6) was incorporated into Building L around 1951 but it was obviously built sometime before. There is no reason why the loft and the raising of the roof should have happened concurrently – the loft with its windows in the common north wall of N could have continued to serve their purpose quite happily until the roof went up to make the present two storeys to N.

Building S: Spray glazing range

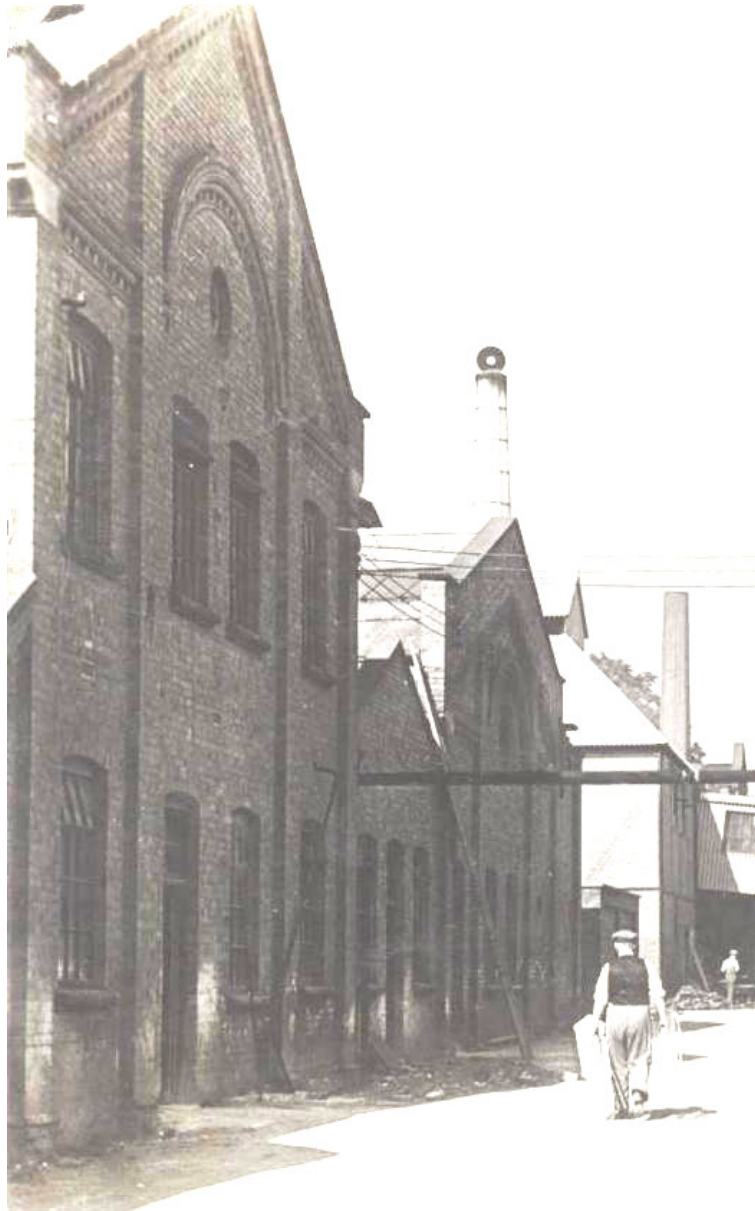


Figure 11: Historic photograph showing the original east front of Building S in the foreground (source: Worcester Porcelain Museum)

History and development

Although now there are only fragmentary architectural details, an historic photograph (Figure 11) and an architect's drawing of a section (Figure 12) confirm that the original gable-ended roof would have been supported by the same type of distinctive composite trusses used, for example, in the adjacent China Decorating and Warehouse Range (Building R), the Binns Building east wing (Building K2), and others on the site.

This range appears on the plan of 1875 (Figure 2) and is similar in design to several other buildings on the site known to have been built in the 1870s. It was built at the same time as, and linked in with the processes of, the adjacent China Decorating and Warehouse Range (Building R) and the demolished kiln house that stood on part of the site of the present New South Range (Building T).

The present utilitarian roof is completely out of character with the fragmentary remains of the original surviving fabric, but there is enough of the Prince's Drive front left, together with historic documents to enable a reconstruction to be made.

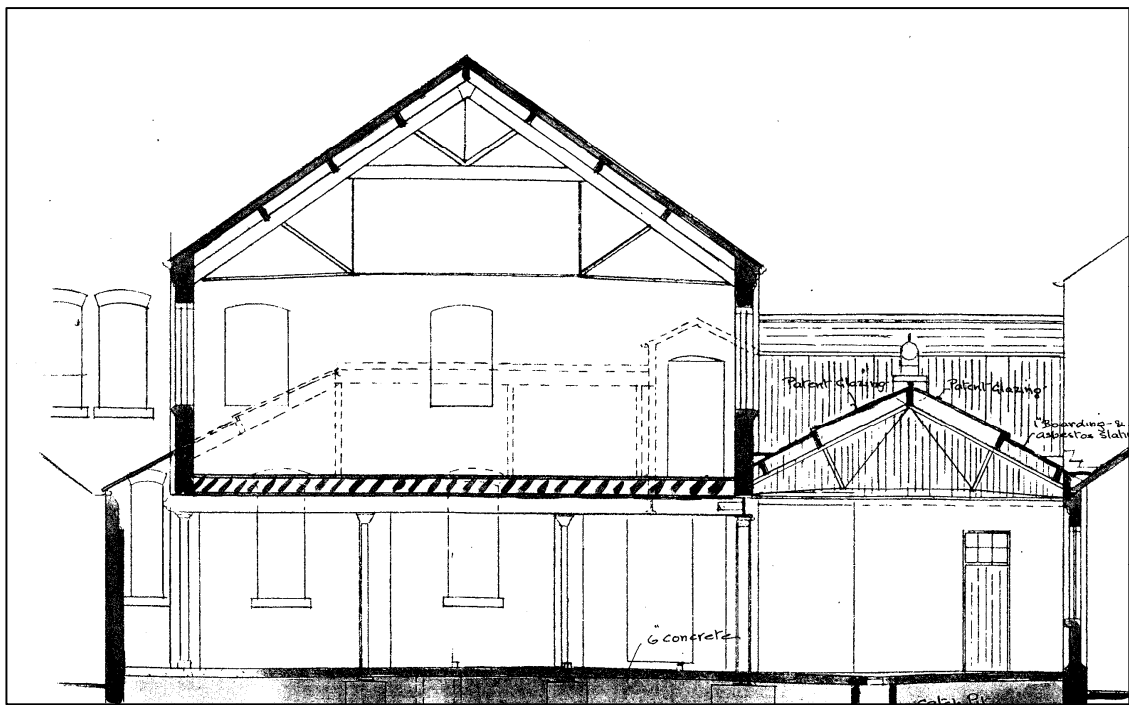


Figure 12: Section through Building S for 1928 proposals (east) showing original roof truss. The single-storey building on the right is for the proposed Dipping House (Building O) to be built in the vacant area between S and M/N. The bridge between M and S/R lies behind the single pitched roof. Ghosted in the background is Building R with the hipped end of the glass-covered roof in the space between Building R and Building S.¹¹

11 City of Worcester Planning Application 5511 (23.4.1928)

As can be seen in Figure 2, Building S served as the Placing Room and dipping house for the glost kilns which lay at Building T – both were built by 1875. The Placing Room lay towards the kilns to the south, taking up half of the building, whilst the other half was taken up by dipping. The dipping of biscuit wares into large tubs of liquid glaze was a skilled job done by hand (Figure 13). Until the establishment of this new area the Dipping House was situated within the core of the old factory. Presumably the new Dipping House was just built in 1875 and up and running the following year when tubs were bought for it.¹²

Above the Dipping House lay the China Glost Sorting House and to reach it a mechanical hoist or ‘dumb waiter’ was installed in July 1884 to move wares from one floor to another. (Figures 14 and 15).¹³ By 1941 this was located under the glazed area which lay between Buildings S and R (Figure 15).



Figure 13: The Hyatt family who worked as china dippers for at least three generations (source: Worcester Porcelain Museum)

12 Minute 2170 (Worcester Porcelain Museum)

13 Minute 3251 (Worcester Porcelain Museum)



Figure 14: The wheel for the dumb waiter engaged in a chain to control the rate of ascent and descent

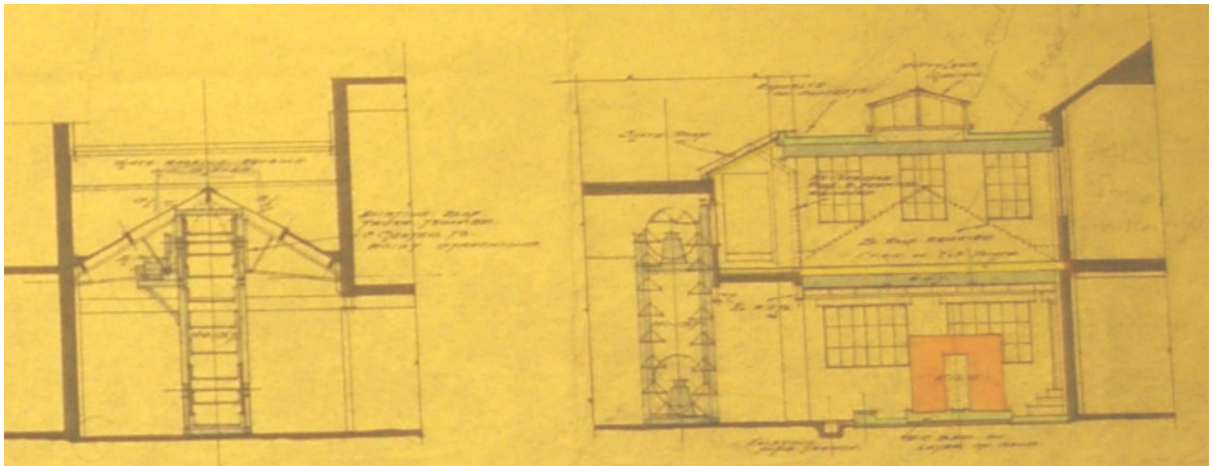


Figure 15: The dumb-waiters under the 1928 glazed area. Left: the pitched roof is the glazed area with Building R to the left and S to the right. Right: the glazed area is to the left with the 'waiter' discharging at the top onto the corridor leading into Building S. Building O lies in the middle with M to the right.¹⁴

By 1928 there was a need to expand, and the Dipping House was moved into a newly-created infill area (Building O) and the north wall removed to give direct access between the two buildings. It appears from plans of the period that Building S now expanded as a Placing House with stoves and more stillage.¹⁵ The original building can be seen in Figures 11, 12, 16 and 17) as well as the 1928 extension into Building O (for further interpretation see Building O).

14 Detail from Ministry of Aircraft Production Proposed Electric Tunnel Kiln Wood Goldstraw etc Architects Tunstall June 11 1941 (Worcester Porcelain Museum)

15 City of Worcester Planning Application 5511 (23.4.1928)

At the time Building O was created there were a number of changes in the area of the bridge between Building M and Buildings S and R. It will be recalled that this bridge was in place by 1875. Where it met Buildings S and R there was another bridge which met it at right-angles resting on the west and east walls of Buildings S and T respectively (Figures 17 and 18) – the bridge from Building M perched somewhat precariously on the corner of Building R. Thus Building S could be reached from this second bridge and access was a simple turn right into Building R.

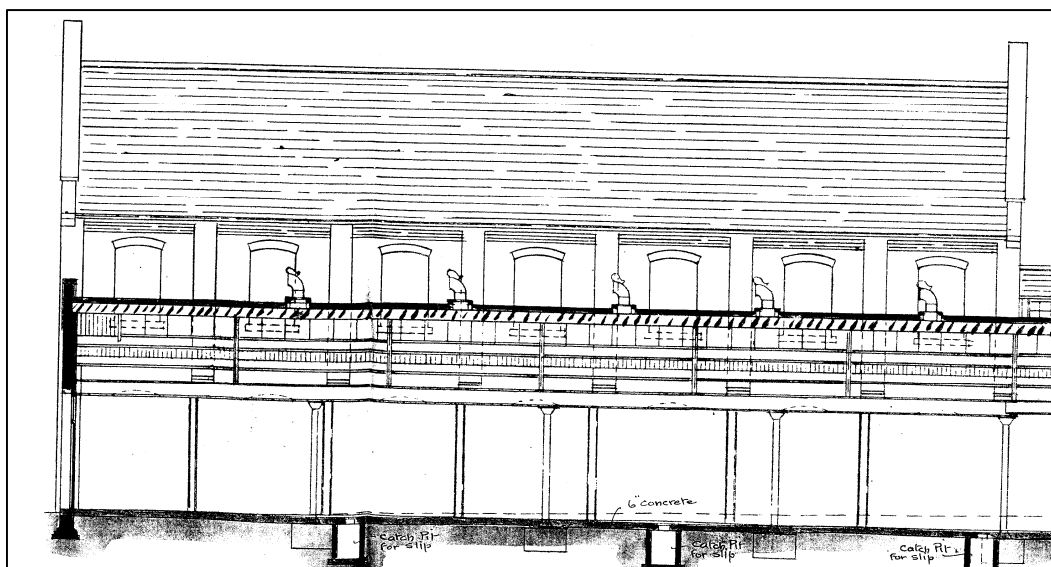


Figure 16: North elevation of Building S with Building O (single-storey to the front)¹⁶

The area beneath both bridges was an open space including a small gap between Buildings S and R (see Figures 19 and 20) where a tank is shown set in the open square). In 1928 it was decided to glaze over this area above the ground floor as shown in Figure 19. With the insertion of I-beams in Building S the opportunity was now open to remove the west wall making an open area right up to the east wall of Building R. With Building O open too there was now one vast space at ground level.

Changes to the roof occurred in 1978 (possibly after fire damage) when the roof was completely altered from its gable end (Figure 12) into the unsightly single 'saw edge' it now displays.¹⁷

From the point of view of production this had the advantage of bringing north light into the work area.

16 City of Worcester Planning Application 5511 (23.4.1928)

17 City of Worcester Planning Application 78/1262 (17.11.1978)

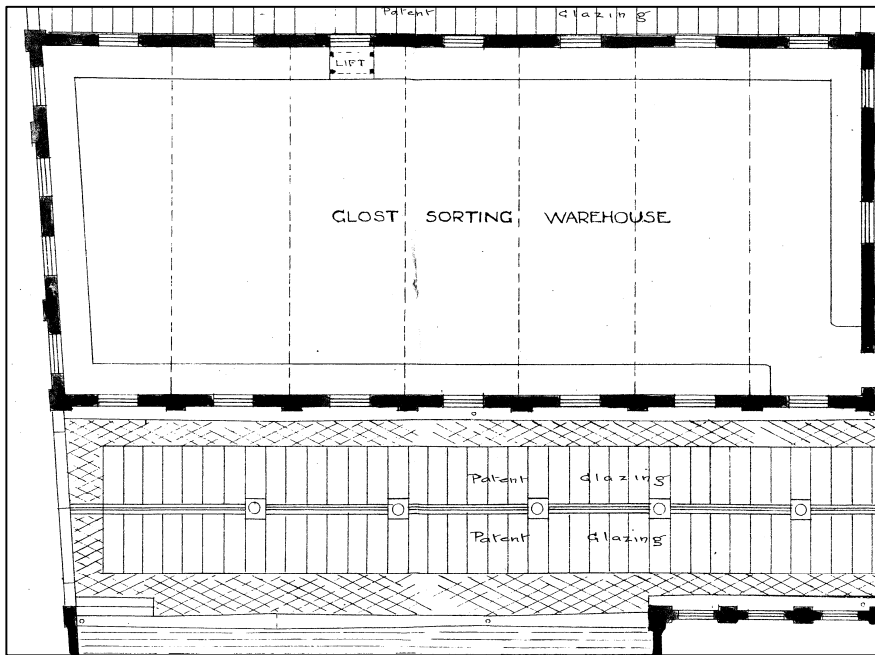


Figure 17: Plan of Building S with part of the 1928 dipping house below¹⁸



Figure 18: The landing into Building S between Buildings S (left) and R (right). To the front lies the dipping house (Building O) with the bridge at the west end of it running from Building M.¹⁹

18 City of Worcester Planning Application 5511 (23.4.1928)

19 City of Worcester Planning Application 5511 (23.4.1928)

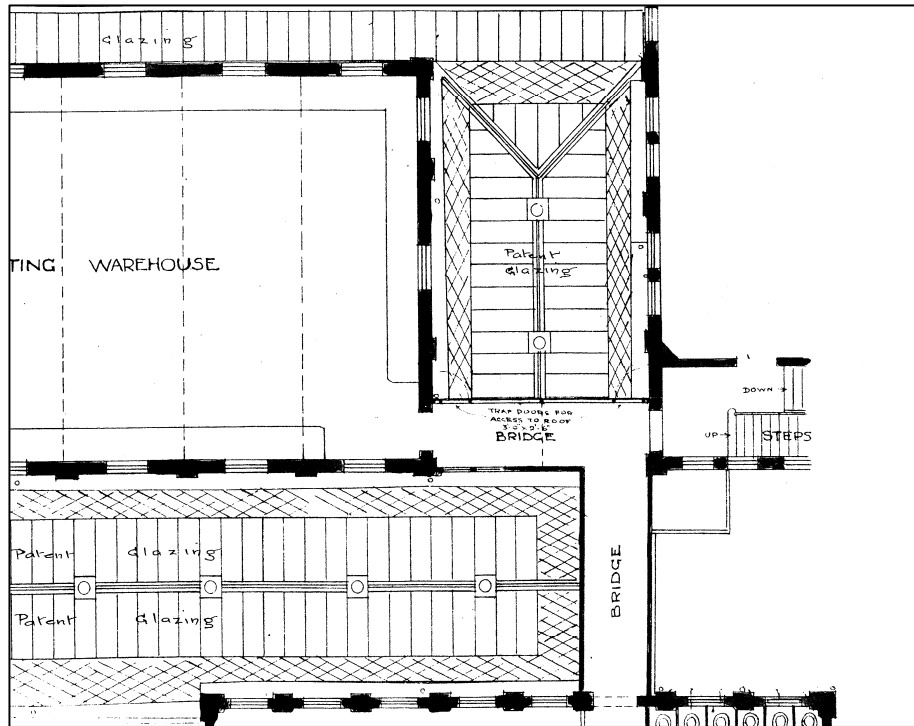


Figure 19: The west ends of Buildings S and O. The bridge runs across the end of O and divides left to S and right to R. The glazed area covers the open space between the west end of Building S and east elevation of Building R.²⁰



Figure 20: Building R right with the bridge. This leads towards the first floor of S (cladded). The inserted skylight over the open area lies in front towards the replacement for Building T.

20 City of Worcester Planning Application 5511 (23.4.1928)

Building O: Southern infill range

History and development

The development of Building O has been touched upon above (Buildings M and S) and what follows adds some substance to this. It originated as a short single-storey infill between the sides of Buildings N (to the north) and Building S (to the south) and was possibly an office. A photograph of around 1900 shows the façade with a central doorway and a window either side (Figure 21) which correspond to the three segmental-headed filled windows to be found today: however it is not shown on a company plan of 1892 and may therefore post-date this.

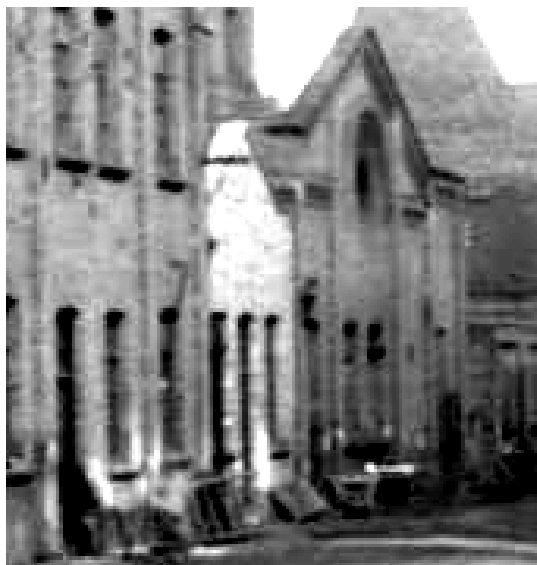


Figure 21: Looking north down Prince's Drive with Building O between Buildings S (left) and N (right) (enlarged detail from a photograph in the Worcester Porcelain Museum)

As we have seen it was extended in 1928 and the plans and elevations for this show that the building was to use the existing walls of Buildings N and S and a good part of those to M (see Figure 17). Evidence for the outer walls of Buildings M and S as being internal to O can be seen in the corbelling and dentils on their south and north walls respectively inside Building O (Figure 22). Six centrally placed pillars supported a glazed roof to provide light between the taller two-storey neighbours Buildings M, N and S. At the same time the existing open area which lay between Buildings S and R was covered with a glazed pitched roof. It was planned to remove the ground floor wall of Building N and insert a beam to provide an open space between N and O on the north side but this was only partly carried out.

In 1941 it was extended further to the west by Welwyn Electric Company who operated a tunnel kiln on behalf of the Ministry of Aircraft for making vitreous ceramic resistors (Figure 23). So that this could run through the middle of the area the roof was made self-supporting and the pillars removed.

To accommodate the extra length required by the kiln, Building O was extended beyond the bridge from M almost as far as the western end of Building R and a flat-roofed two-storey building added closing off most of the windows from the lobby at the north end of Building R. A lean-to glazed area was also added (Figure 23, top). As we have seen, the extension from Building M cut through the glazed-pitched roof of the former dipping house to form another floor above which when combined with the bridge from Building M and the 1941 addition to the west for the tunnel kiln gave a continuous first floor area almost up to the west elevation of Building R) to accommodate the end of a tunnel kiln (Figures 24 and 25) which appears to have been the main role for Building O after 1941.

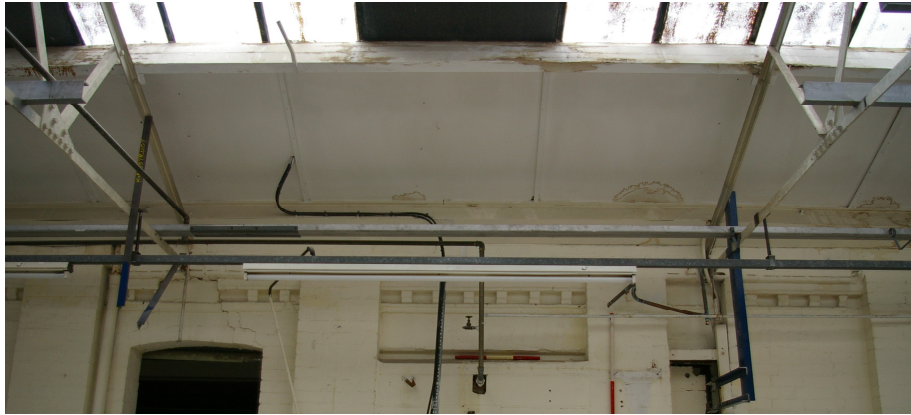


Figure 22: Dentil course in the wall of Building N which is common with Building O

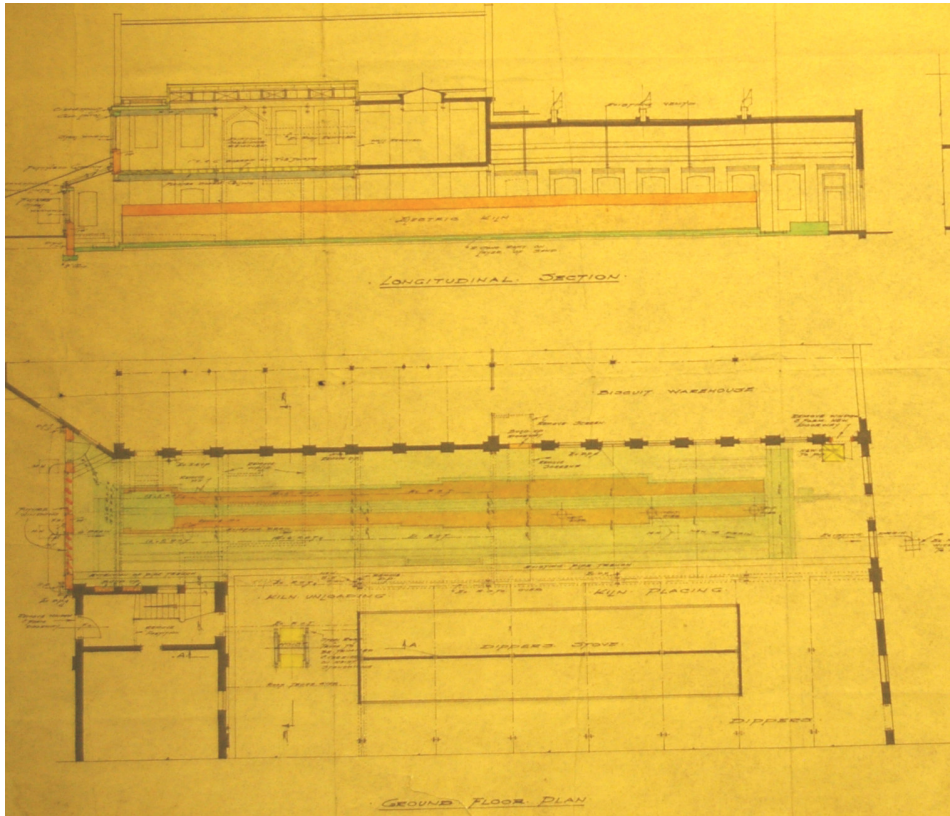


Figure 23: Building O section plans. Top: showing the kiln (red) with the extension to Building M above it with its flat roof. Bottom: Building R (bottom left) and S to the right of it. The dumb waiter lay in the glazed area between.²¹

21 Ministry of Aircraft Production Proposed Electric Tunnel Kiln Wood Goldstraw etc Architects Tunstall (June 11/1941) (Worcester Porcelain Museum)



Figure 24: Building O looking west into Building P showing the ceiling from M as extended around 1941



Figure 25: Interior of Building O, looking east. Building N is to the left (with dentil course) and Building S to the right (with corbelling). A tunnel kiln lies in the centre.

Building T: New south range

History and development

As we have seen Building S (and later O) served as the Dipping House, Glost Sorting Rooms and Placing Rooms for Building T where four glost kilns lay by 1875 (see Figures 2 and 26). As with the rest of the group they were probably designed by George B Ford.



Figure 26: Historic photograph showing the four kilns at Building T (source: Worcester Porcelain Museum)

The transfer of dipping from Building S into the new Building O in 1928 was the forerunner to further changes in the organization of this part of the works. In May 1929 the demolition of two top china glost ovens was approved to make more room for the burnishers. At much the same time the saggar plant was moved from the glost area to near the mill entrance.²²

As we have seen elsewhere kilns needed heavy maintenance and came and went as a result. For instance, in 1884 (Figure 3) there were only three kilns at T with a gap where the fourth would have lain and, in spite of the apparent demolition of two in 1929, by 1936 there were four again.²³ In spite of the many changes to the works during the Second World War, two of the kilns survived but the two to the east were commandeered by Welwyn Electric Company for the production of resistors. This does not appear to have affected the chamfered corner to the oven shed in this area.

22 Minutes 9608 (May 1929) and 9622 (June 1929) (Worcester Porcelain Museum)

23 Schofield's Insurance Plan of 1936

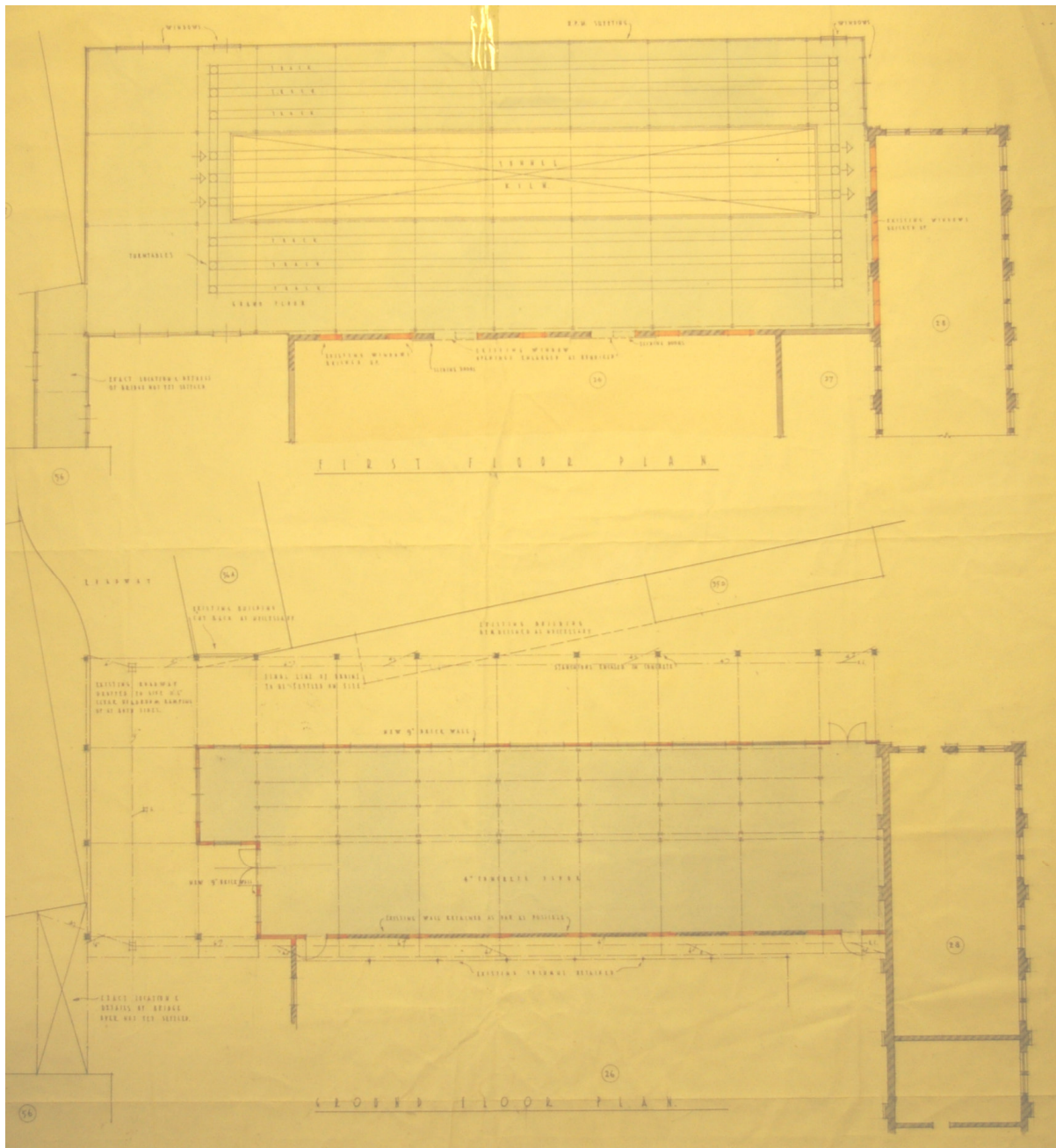


Figure 27: Building T as planned for redevelopment in March 1947. Top: the extent of the proposed new area. Bottom: the existing kiln area. The rectangular area to the right is Building R (source: Worcester Porcelain Museum).

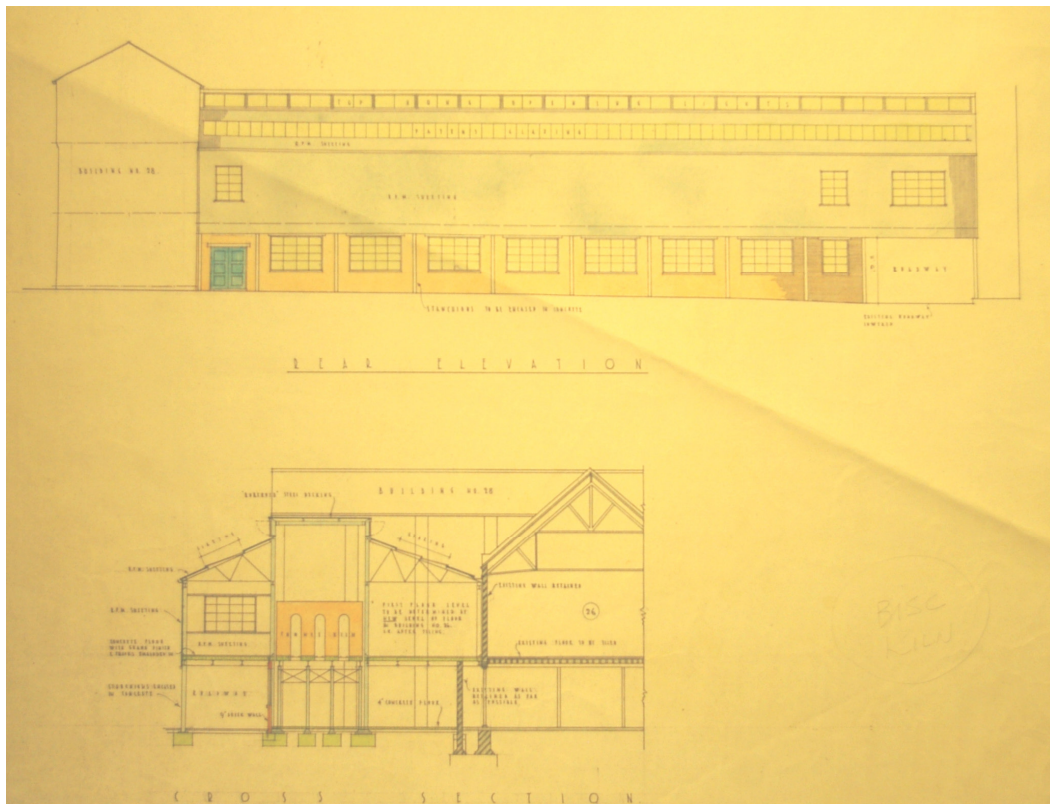


Figure 28: Elevations of Building T as planned in March 1947. The top shows the south elevation and the bottom the east with the kiln set on the first floor. Building S (right) still has its gable roof and truss (source: Worcester Porcelain Museum).



Figure 29: Building T, small ground floor room adjacent to east elevation of Building R

In 1947, as part of the post-war redevelopment of the factory, there were dramatic changes to Building T for which designs were produced by Sam Cooke and Partners between January and March 1947 (Figures 27 and 28). These involved the complete dismantling of the kilns and oven sheds and rebuilding on an extended southern and eastern boundary in its present form to take tunnel kilns at the first floor. Apart from the increased boundary a connecting bridge was built across Prince's Drive to Building W1 and T so that Greenware could be brought directly to the first-floor kiln. The new building was complete by 1953.

Although a substantial building, it used the existing south wall of Building S and east wall of Building R as common to both and the windows to these were blocked. At the ground floor the division within the large common space created by the amalgamation of Buildings T and S can only be distinguished by a row of cast-iron columns left between the two. But in spite of the large space there are disbursed within some specialist rooms (Figure 29).

As to the operation of the tunnel kilns: it would usually take two men (placers) eight hours to load a kiln truck. The pots must not be allowed to touch and the truck has to be evenly loaded to avoid cool or hot spots. The biscuit firing would take approximately 20 hours (to 1250 degrees centigrade) then another 2 hours to unload the truck (Figures 28 to 31).



Figures 30, 31 and 32: China biscuit tunnel kilns on the first floor of Building T

Building R: China decorating and warehouse range

History and development

Building R was built as the Finishing Range and like most of this group was in place by 1875 (Figure 2) and built by George B Ford. Here wares that had been glazed and fired for the second time were inspected and any small blemishes were removed. In 1882 the staircase into the lobby was widened to 5½ feet, replacing a narrow winding staircase which ware carriers had to negotiate to and from the enamel kilns in the ground floor of Building M.²⁴ By 1929 the first floors of Buildings R and Q were given over to the printers and a bridge was built linking the two so that wares from both areas were linked by the stairs to the enamelling kilns (Figure 33).

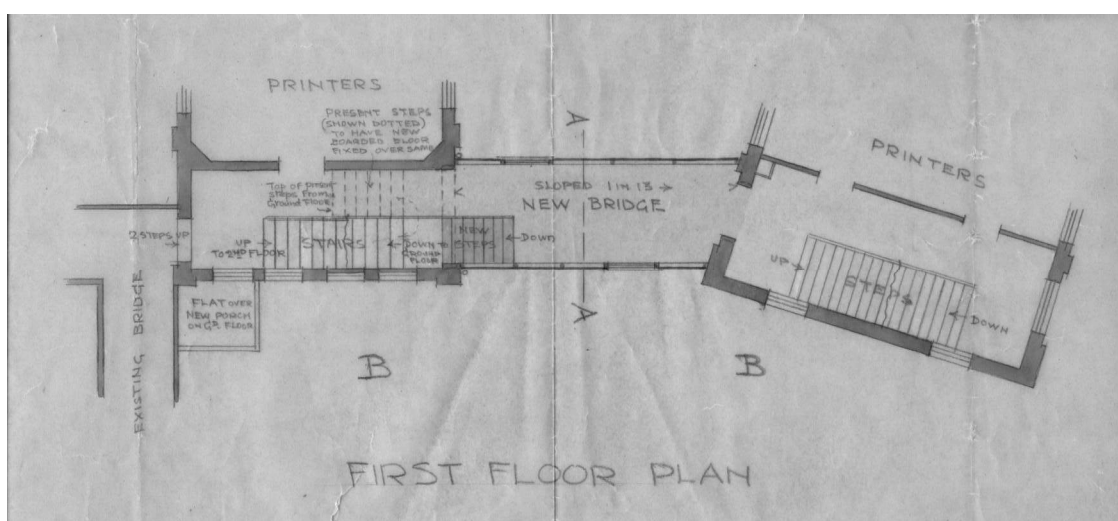


Figure 33: The bridge between Buildings R and Q built in 1928 (source: Scrivener & Sons 1928, Worcester Porcelain Museum)

Building R lies to the left with the lobby and the stairs leading down from it, with Building Q to the right.²⁵ Following the War, the function of the building changed once more to be used by the painters on two floors with work areas defined by metal screening.²⁶ This was on the eve of the major conversion of Building T which, when it came, meant that Building R was drastically knocked about, particularly at ground level. The east side was largely removed to provide access into the glazed-roof area. This lay to the east up to Building S and, when the west perimeter was extended by the building of P around 1963, a fair part of the west ground floor wall was removed. Some however was left intact leaving the stairwell to Building R to support much of the other two storeys. In fact this four-sided block (which included the lobby) was central to supporting much of the surrounding structures and bridges.

Until the building of T, the first floor windows of Building R had looked over the lower-lying kilns of the original build. Now with the new lofty replacement these were hidden within the building and filled. The remains of the corbelled heads of the pilasters of R can be found within T.

24 Minute 3449 (Worcester Porcelain Museum)

25 Plan by Scrivener & Son 1928 (Worcester Porcelain Museum)

26 Plan by Sam Cooke March 1946 (Worcester Porcelain Museum)



Figure 34: Building R, ground floor remains of east elevation from inside Building T

In 1953 the top floor was used for gold dusting. This was a process where powdered gold was dusted onto a design printed onto a piece in oil to make the gold dust stick. In the 1980s the building was used as a storeroom on what was left of the ground floor, a store on the first floor and offices above. In the 1990s the ground floor housed an electric glost kiln.



Figure 35: Looking north from inside the ground floor of Building R towards the boxed-in stairwell. On the left lies the knocked through wall to Building P and on the right lies Building S beyond the glazed area.

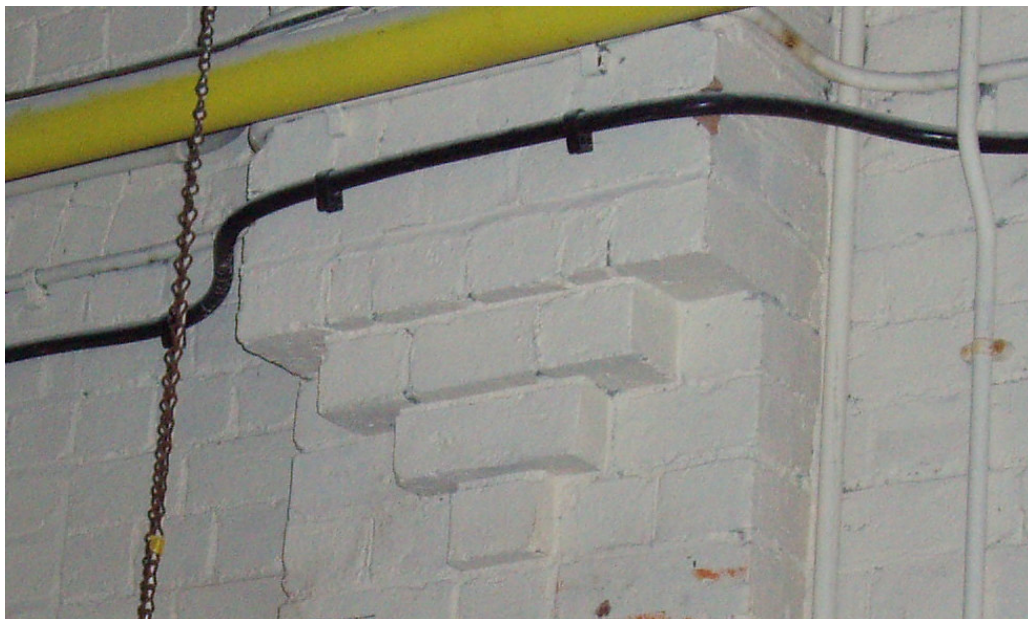


Figure 36: Corbelling on a pilaster on Building R seen in T

Building L1: The male and female lavatories

History and development

In 1950 both Buildings M and N were given over to polishing and grinding. Major changes then began after October 1950 when an application was made to Worcester City Council (Figures 40, 41 and 42). These included the demolition of the angled single-storey west end of Building M (Figure 42). The area of the first storey at the west end of Building M had previously been revamped when the tunnel kiln was installed in Building O. A major improvement in communications had also been effected by a corridor which passed through M linking the bridges so that Building R could be more easily reached from J and *vice versa* without making a roundabout journey following the outside of the buildings. It was now that the vacant surrounding area began to be used for the erection of a lavatory block. It also left the area vacant for the installation of new tunnel kilns (Building P).

The 1950s male and female lavatories encroached partly into the lean-to of Building M but was nevertheless separate from it. The new block was flat-roofed and pretty utilitarian and used similar elevations on the exposed north and west sides.²⁷ The arrangement of six narrow windows for cubicles on the first floor allowed for six female lavatories (Figure 37, 38 and 39) on each elevation whilst the male lavatories beneath were far more enclosed. A single-storey lean-to was built against the west wall which, by continuation, would form the north end of Building P.

27 Minute 901 Book 12 (22.9.1950) (Worcester Porcelain Museum) "Mr Gimson [Managing Director] reported upon having instructed Mr S Cooke and partners to make application for building licences alterations to decorating departments with additional Lavatory accommodation £3250".



Figure 37: Building L1 (the lavatory block). This shows the windows and drainage to each cubicle in the female first floor part. Building J lies to the left with the over-bridges to Building M.

Figure 38: The lavatory block. This is looking towards the bridges (one to the first floor and one to the second floor) between Buildings M (right, not in view) and J (left).



Figure 39: Building L. Part of the male lavatories.

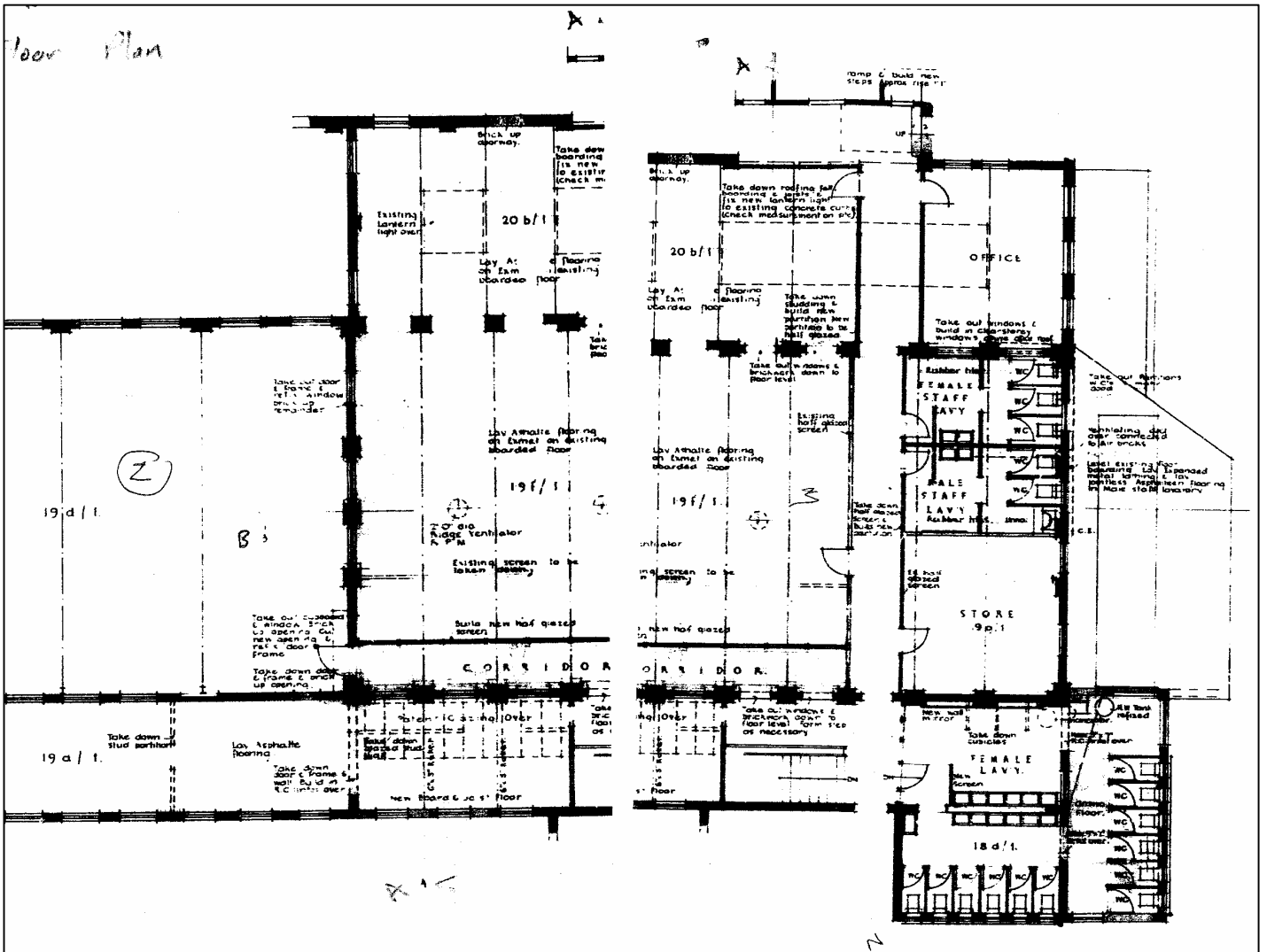


Figure 40: 1950 changes to Building M²⁸

28 'Provision of lavatories by extension of polishing and grinding shop' City of Worcester Planning Application 9624 (20.10.50)

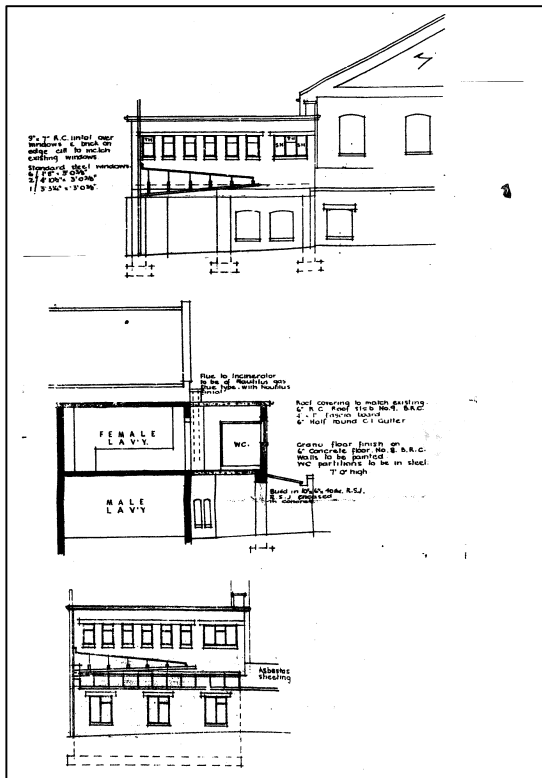


Figure 41: The new lavatories.
top: west elevation with Building M to right.
middle and bottom: north elevation showing the
side elevation of Building M.²⁹

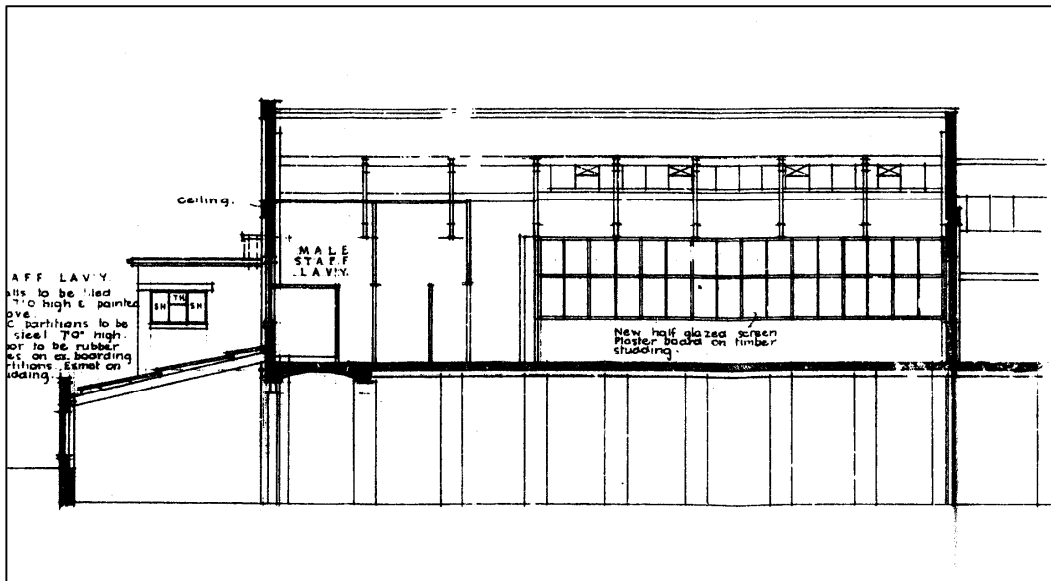


Figure 42: Building M south elevation with female lavatories to left. The lean-to lies in the demolished area of M.³⁰

29 City of Worcester Planning Application 9624 (20.10.50)

30 City of Worcester Planning Application 9624 (20.10.50)

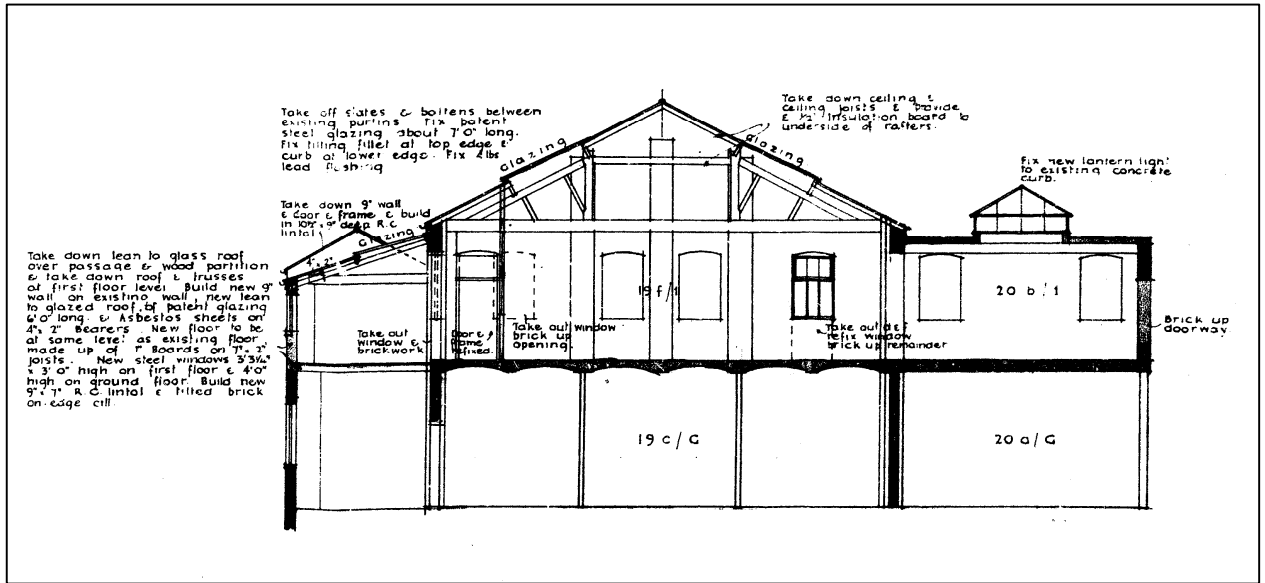


Figure 43: West-facing cross-section of Buildings L (left), M (centre) and O (right) showing the alteration of the lean-to structure³¹

Building L: Glost inspection range

History and development

There was already a tunnel kiln dating from 1941 in Building O and there had been rumblings about a post-war gas kiln back in 1947 and eventually one was lit in May 1950 in Building G. The success of this prompted the planning of a new gas kiln in February 1951 to fit into the area between Buildings N and J (Figures 43 to 46). There was already a narrow two-storey addition to Building N which had probably been adapted using the north wall of N which originally had a lean-to here (see Figure 9). The area formed between this two-storey building and the south wall of Building J was open. It was in this narrow combined space that it was decided to build and house the proposed tunnel kiln. The western part was already taken up by the crossings from Building M to J and a lean-to built with Building M which had been modified when the lavatories were built. The two-storey building running alongside Building N occupied an area which ran to roughly midway between the two main blocks (Buildings N and J) and was retained. The kiln was erected beneath this existing strip with an existing loft above (see Figure 48). The open space up to Building J was built over at ground floor only and given a skylight to make a working area beneath (Figure 49). In order to give this working space at the side of the kiln the dividing wall was removed at ground level and steel props inserted to support the upper (north) wall of the loft (Figure 49). Figures 49 and 50 confirm that the existing south wall of Building J was common to both buildings. A former exterior staircase into Building J was retained.

³¹ City of Worcester Planning Application 9624 (20.10.50)

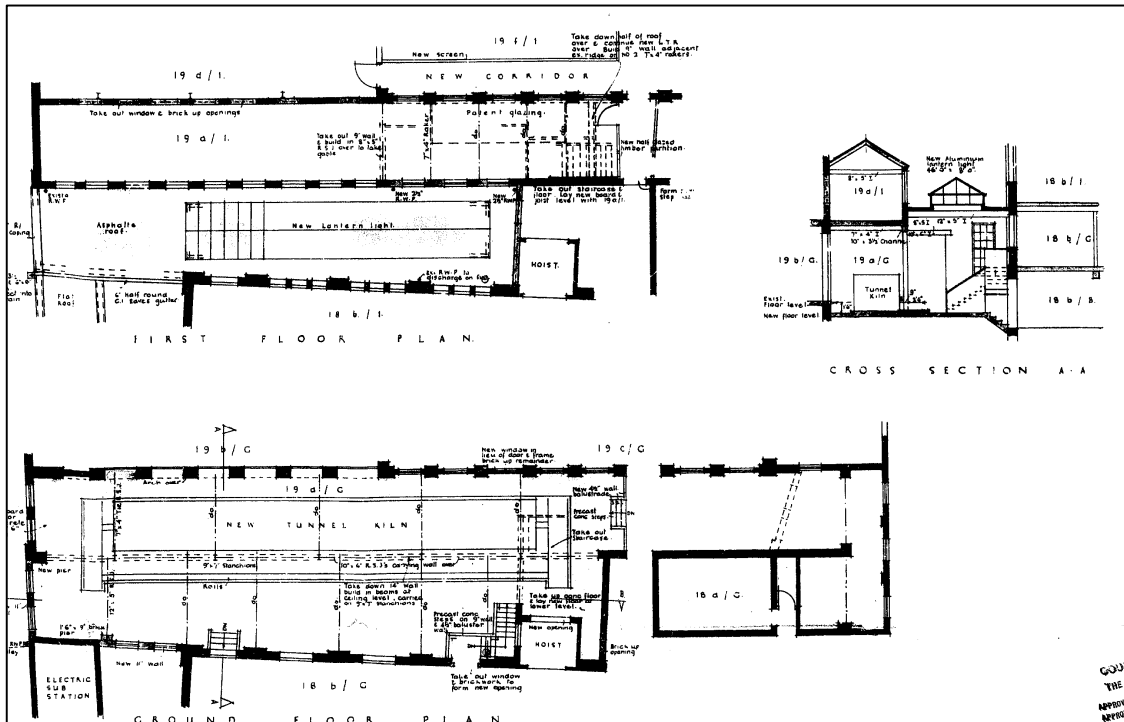


Figure 44: Building L, plans for the new tunnel kiln and housing. Top: first floor showing the retention of the central dividing wall. Bottom: ground floor showing the removal of the dividing wall. Right top: east elevation with the lantern light and loft³²

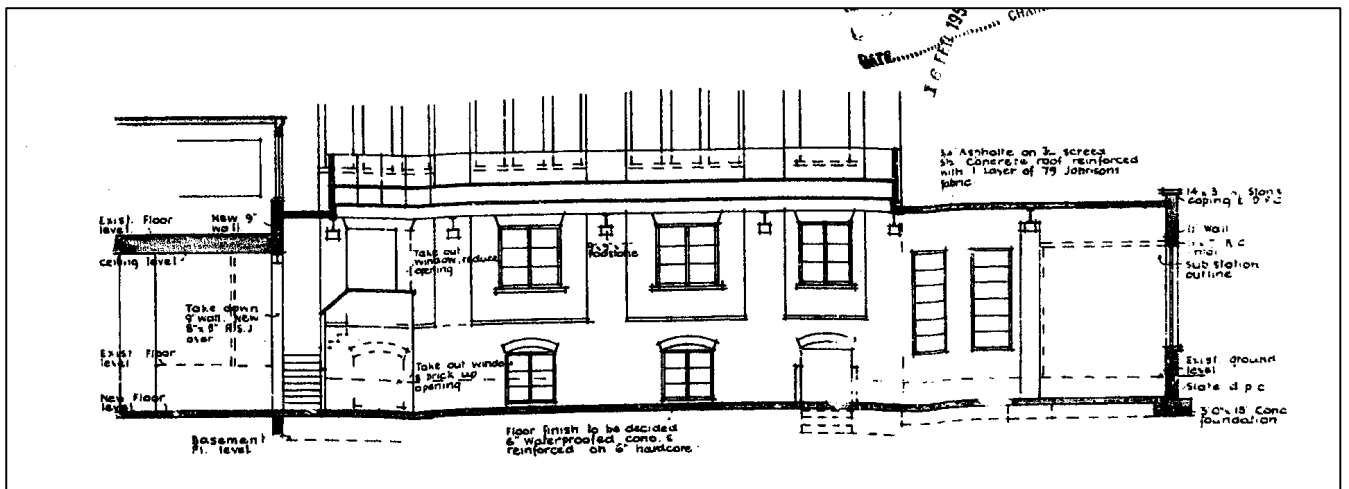


Figure 45: South elevation of Building J. The superimposed dark line represents Building L³³

32 City of Worcester Planning Application 9724 (16.2.51)

33 City of Worcester Planning Application 9724 (16.2.51)

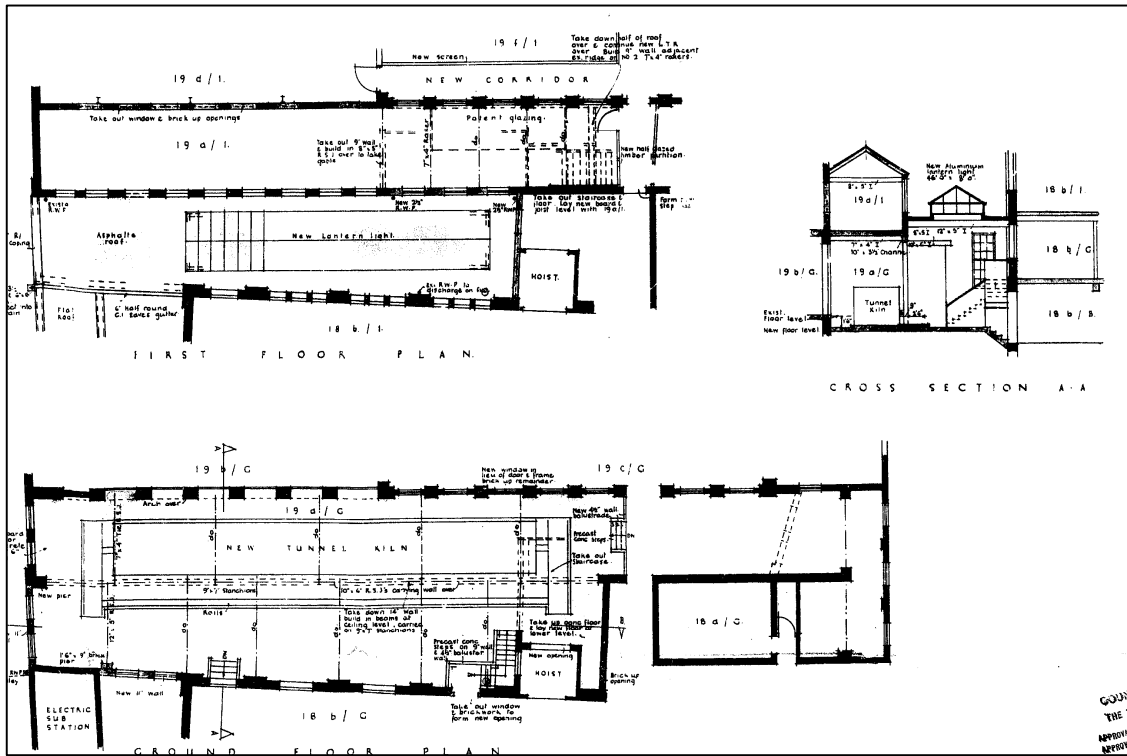


Figure 46: Building L, plans for the new tunnel kiln and housing. Top: first floor showing the retention of the central dividing wall. Bottom: ground floor showing the removal of the dividing wall. Right top: east elevation with the lantern light and loft.³⁴

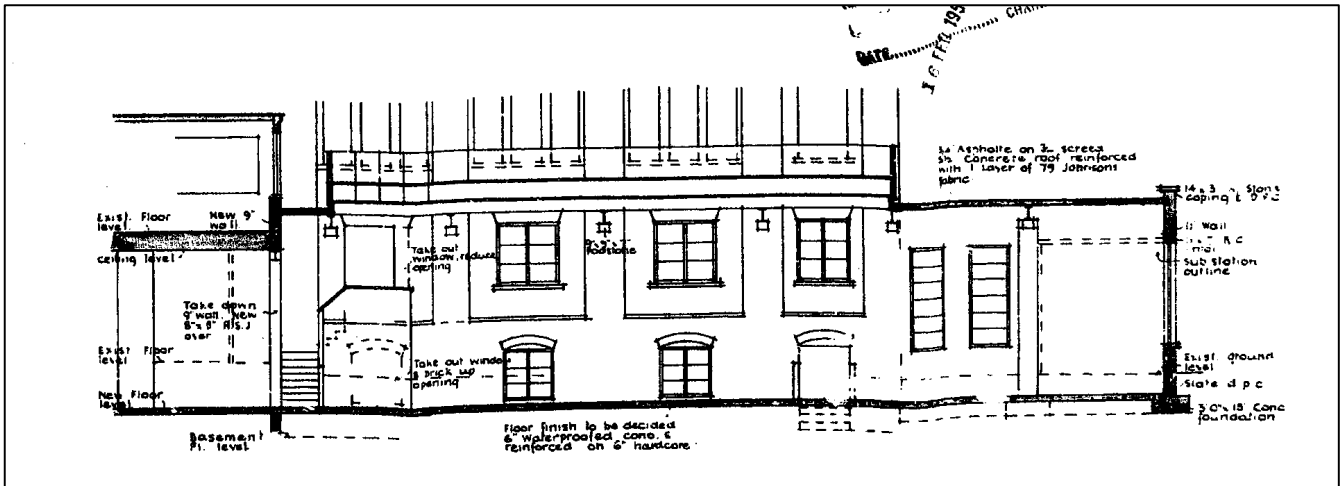


Figure 47: South elevation of Building J. The superimposed dark line represents Building L.³⁵

34 City of Worcester Planning Application 9724 (16.2.51)

35 City of Worcester Planning Application 9724 (16.2.51)



Figure 48: The loft above Building L



Figure 49: Building L, interior, looking east. The 1951 tunnel kiln lay to the right. To the left lies the wall to Building J and to the right the wall to Building N. The stairs on the left were originally external. Note the lantern light as shown in Figure 43 and underpinning for the extant wall above.



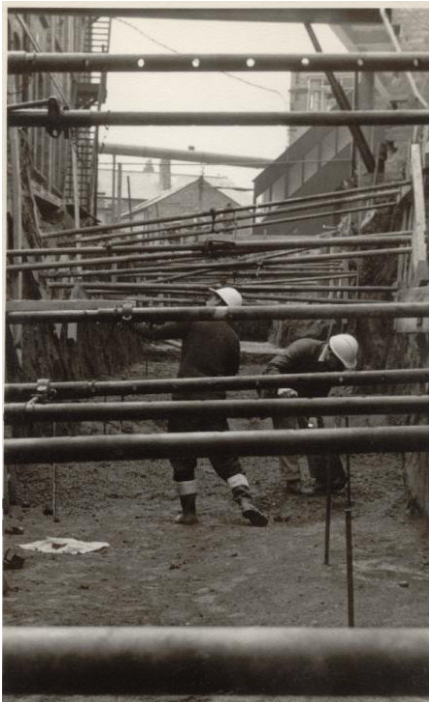
Figure 50: Building L, interior looking towards the exterior wall to Building J. The stairs that lead into Building J were originally exterior. Note the underpinning where the central wall has been removed.

Building P: Western infill range

History and development

In November 1963 attention was turned to the installation of a further kiln to run south from the lavatory block to terminate level with the southern end of Building R (Figure 53). The lavatory block extended slightly beyond the western end of Building M which, it will be recalled, had lost its angled west end. There was, therefore, a narrow strip of vacant land which extended from the lavatories running behind Buildings M and O and the long side of R to slightly beyond its southern end.

In November 1963 application was made to fill this space with a building to hold a tunnel kiln. The installation of this kiln appears to have been delayed for at least three years as it was not until August 1966 that a kiln by Gibbons Brothers Ltd for a 'Proposed Gas Fired Muffle Kiln for China Glost Ware' was considered.³⁶ The space available was tight and where Building P meets Q there is barely space to pass around the outside where it passed beneath a bridge connecting Buildings R and Q. Although most of the building covering the kiln is mono-pitch, the preparations for the kilns were extensive with excavation to some depth being necessary to allow for access beneath the kiln for maintenance purposes and to maintain production (Figures 51 and 52). Kiln trucks were pushed into the kiln and latched onto one another, they were slowly moved along through the kiln which operated for 24 hours a day. The inspection pit was therefore needed to repair the kiln and to unhook trucks that got stuck.



Figures 51 and 52: Building P under construction at the southern end (source: Worcester Porcelain Museum)

36 Plan by Gibbons Brothers dated 28.8.1966 68004/A (Worcester Porcelain Museum)

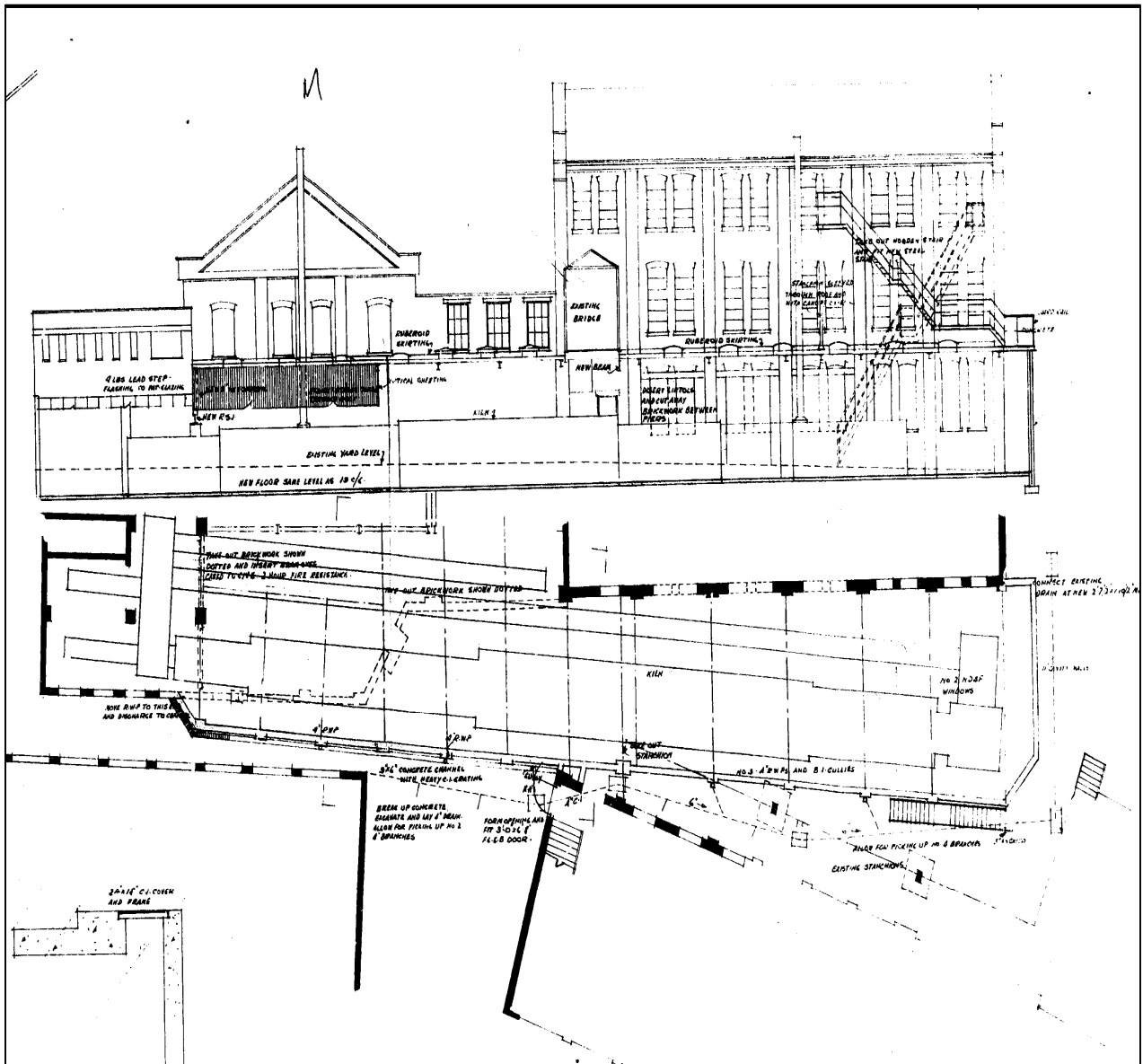


Figure 53: Building P. West elevation: Lavatories (left), Building M (with the gable end) and the long side of Building R. The three windows between Buildings M and R belong to the extension built in 1941 for the tunnel kiln in Building O. The intended Building P lies to the front. Plan: showing the intended tunnel kiln.³⁷



Figure 54: Building P under construction at the northern end (Building M lies behind with the lavatory block to the left. This lies on the site of the angled projection to M) (source: Worcester Porcelain Museum).



Figure 55: Building P under construction at the northern end (source: Worcester Porcelain Museum)

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Wendy Cook BA (Hons), Curator, Worcester Porcelain Museum
John van Laun PhD FSA MIFA